INVESTMENT ASSIGNMENT

SUBMISSION

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Abstract

Spark Funds, an asset management company wants to make decision about investment.

The company intends to select the **best sector, country and suitable funding type** for their investments.

The main constraints for the investment are

1. Investment in the range 5-15million USD per round of investment.

2. Only English –speaking countries to be considered for investment

Approach

1. Data acquisition
   - We have taken the data from **crunchbase.com** in the form of **companies** db(companies details), **rounds2** db(funding type and amount) and **mapping** csv(map categories to **8 top level sectors and other category**).

2. Data preparation and clean-up
   - Create a master data frame with **merge** of **companies** and **rounds2** db on **"company_permalink".**
   - Clean up the master df by **dropping** rows with empty values in any of raised amount, category list and country code.

3. Analysis
   1. Investment type analysis
   2. Country analysis
   3. Sector analysis

4. Decision making
   - Arrive at a suitable investment option for the company.

Investment Type Analysis

- Objective of the company is to invest in the range **5-15 million USD per round.**

- Average funding across the types – **venture, seed, angel and private equity**

- Pick the **average funding as the most representative value** and which falls in the range 5-15million USD

Country Analysis

- Objective is to pick the country which is **most funded.**

- The country selected should be **English speaking**.

- Prepare a list of top 9 countries in order of total investments received.

- Out of the top 9 list, pick the top 3 countries where English is an official language.
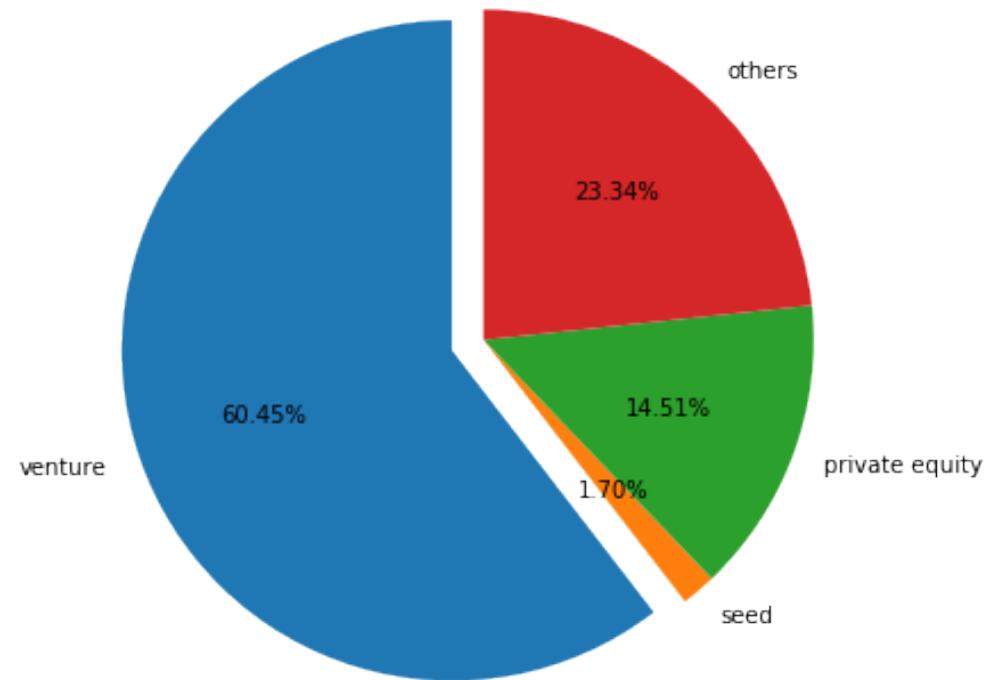
Sector Analysis

- Objective is to find the most heavily invested sector for the selected funding type and countries.

- Prepare a column representing the **primary sector** of a particular company.

- Using mapping csv, prepare a column representing the **main sector** out of the 8 sectors for each company.

- For each of the **three countries** selected, pick the **sectors receiving highest funding** of type selected from **investment type** analysis and investments in the **range of 5-15million USD**.
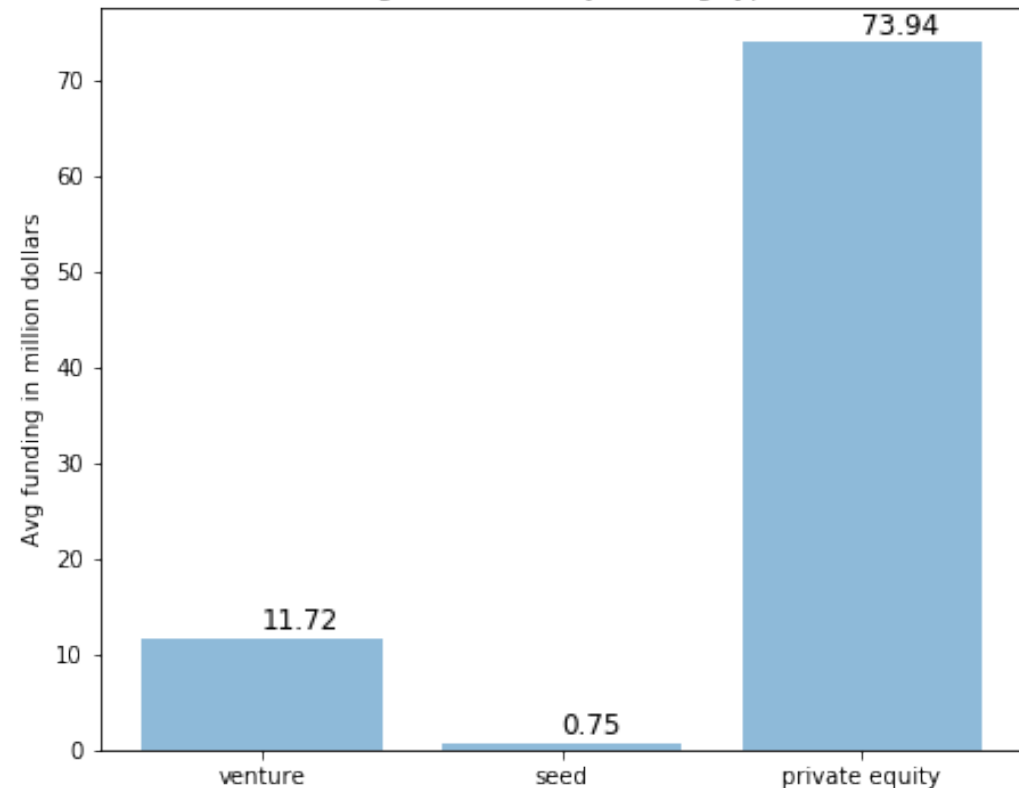
Results – Investment Type

From the analysis – **Venture funding** is most suitable, as its average funding is in the range 5-15million USD. And it is also the most representative investment type with 60.45% funding out of total investments.
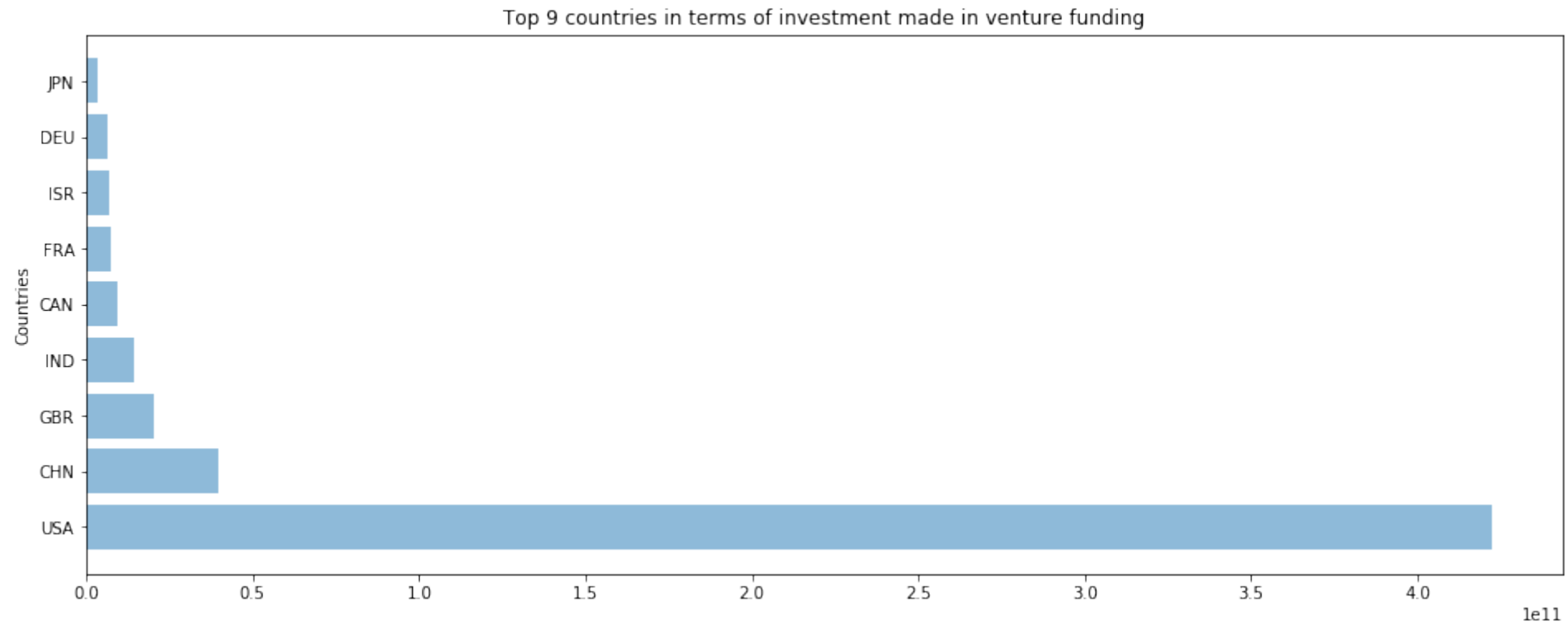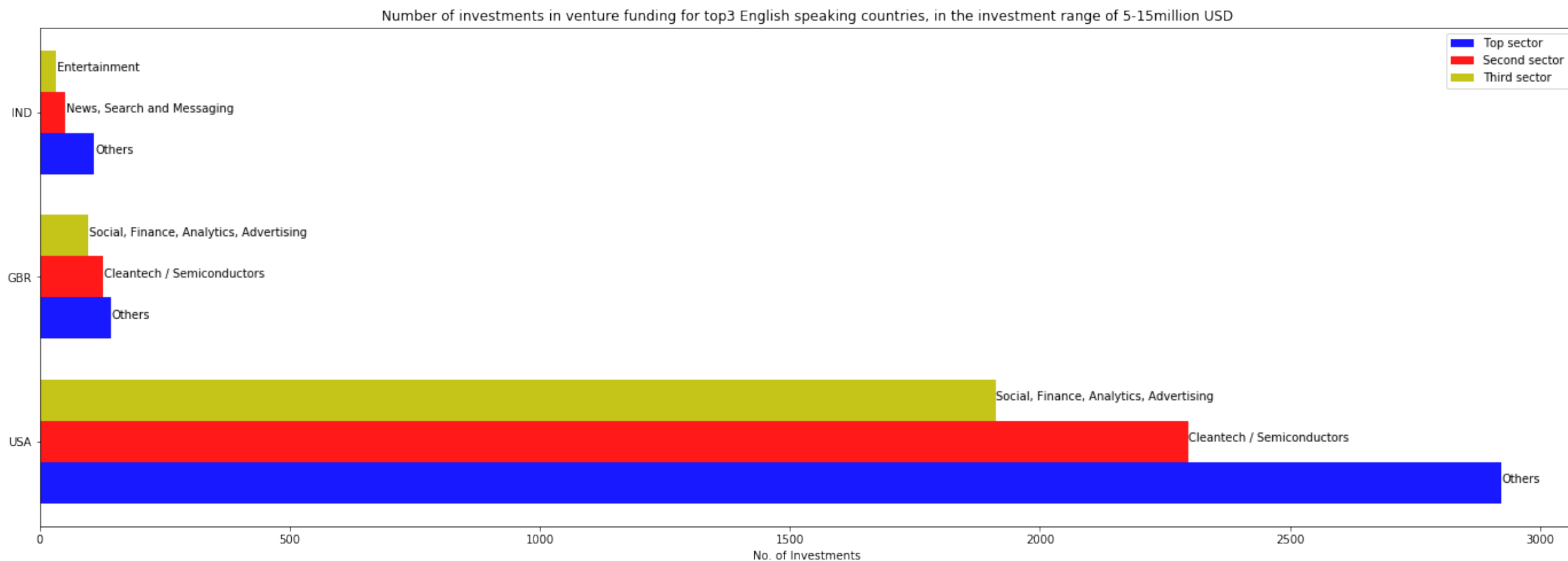
Results – Country

From the analysis – **USA, GBR and IND** are the most suitable English speaking countries as represented by the total investments received in **venture funding** in these countries.

Top 9 countries in terms of investment made in venture funding

Results - Sector

From the analysis – following are the **top 3 sectors in the top 3 suitable countries** for the relevant **venture funding in the range of 5-15 million USD**.

Number of investments in venture funding for top3 English speaking countries, in the investment range of 5-15million USD

Conclusion

From the analysis and the ensuing results:

It is clear that

- Venture funding is the most suitable investment type.

- USA, GBR and INR are the most suitable countries to invest.

- And the top 3 sectors in each of these countries to invest in are
    - USA – Others, Cleantech/Semiconductors, Social Finance Analytics Advertisements
    - GBR – Others, Cleantech/Semiconductors, Social Finance Analytics Advertisements
    - IND – Others , News Search and Messaging, Entertainment